

**Patent Claims**

1. A data processing device (10) programmed for creating and distributing financial information  
5 equipped with at least one network-compatible interface (S), characterized in that the at least one interface (S) can be connected to a dynamic number of customer systems (CS1 to CSn) such that the at least one interface (S) can be used to transmit financial  
10 information to the customer systems (CS1 to CSn) from the data processing device (10) at any time, and conversely to transmit lists containing key values (Cifps1 to Cifpsn) and parameters to the data processing device (10) from the customer systems (CS1  
15 to CSn), the supply files and/or supply data streams (CL1 to CLn) created comprising inventory and/or delta data elements.

2. The data processing device (10) as claimed in  
20 claim 1, characterized in that the at least one interface (S) can be used to fetch data from the customer systems (CS1 to CSn) and/or to send them within the context of a pull service and/or push service, and the at least one interface (S) is  
25 preferably a protected interface (S).

3. The data processing device (10) as claimed in claim 1 or 2, characterized in that three data processing systems (A1 to A3) are provided which are  
30 connected by means of network and are set up such that a data collection system (HPS) with a database (HPSDB), a delta data generation system (VSS) with an inventory database (SupplyDB) and a customer distribution system (VDFS) with at least one interface (S) can be  
35 recognized.

4. The data processing device (10) as claimed in claim 3, characterized in that a delta database (DeltaDB) is provided for storing delta data elements, and in that preferably every data processing system (A1 to A3) has at least a respective processor and a respective data store.

5. A data processing system (A1) having a processor and a data store, characterized in that it has a data collection system (HPS) with a database (HPSDB), and in that it can be connected to a second data processing system (A2) which has a delta data generation system (VSS) with an inventory database (SupplyDB), and also can be connected to a third data processing system (A3) which comprises a customer distribution system (VDFS) with at least one interface (S) and with preferably a delta database (DeltaDB), the second and third data processing systems (A2, A3) preferably having a respective processor and data store themselves.

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6. A data processing system (A2) having a processor and a data store, characterized in that it has a delta data generation system (VSS) with an inventory database (SupplyDB), and in that it can be connected to a first data processing system (A1) which has a data collection system (HPS) with its own database (HPSDB), and in that it can be connected to a third data processing system (A3) which comprises a customer distribution system (VDFS) with at least an interface (S) and with preferably a delta database (DeltaDB), the first and third data processing systems (A1, A3) preferably having a respective processor and data store themselves.

35 7. A data processing system (A3) having a processor and a data store, characterized in that it comprises a customer distribution system (VDFS) with at least an

interface (S) and with preferably a delta database (DeltaDB), and in that it can be connected to a first data processing system (A1) which has a data collection system (HPS) with its own database (HPSDB), and in that  
5 it can be connected to a second data processing system (A2) which has a delta data generation system (VSS) with an inventory database (SupplyDB), the second and third data processing systems (A1, A2) preferably having a respective processor and data store  
10 themselves.

8. A hierarchical data structure for messages for the financial sector, characterized by the message flags inventory and delta and by the message order based on  
15 the five areas (B1-B5) comprising the metadata (B1), institutions (B2), financial instruments (B3), events (B4) and prices (B5) areas.

9. The data structure as claimed in claim 8,  
20 characterized in that the foreign keys available in the institutions (B2) area, which are unable to be resolved locally, can be resolved in the metadata (B1) area.

10. The data structure as claimed in claim 8,  
25 characterized in that the foreign keys available in the financial instruments (B3) area, which are unable to be resolved locally, can be resolved by the metadata (B1) and institutions (B2) areas.

30 11. The data structure as claimed in claim 8, characterized in that the foreign keys available in the events (B4) area, which are unable to be resolved locally, can be resolved by the metadata (B1), institutions (B2) and financial instruments (B3) areas.

35 12. The data structure as claimed in claim 8, characterized in that the foreign keys available in the

prices (B5) area, which are unable to be resolved locally, can be resolved by the metadata (B1), institutions (B2), financial instruments (B3) and events (B4) areas.

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13. A method for creating and delivering financial information for the financial sector, where inventory and delta data elements are delivered in a particular message order, characterized in that the message order  
10 supports data management with referential integrity such that every data element is processed on the basis of its position in the message order, so that the referential integrity of the data management remains assured.

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14. The method as claimed in claim 13, characterized in that the method is applied to a data structure based on one of claims 8 to 12, where inventory and delta messages are formed by predetermined method steps (Si1-Si6, Sf1-Sf5 and Sc1) from any subset of primary keys  
20 from the institutions (B2) and financial instruments (B3) areas, the property of referential integrity being assured and the volume of messages being minimal.

25 15. The method as claimed in claim 13 or 14, characterized in that automatic extension of key lists (Cifps1 to Cifpsn), based on the interactive selection of parameters and data element types, can be used for automatic creation of portfolio information.

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16. The method as claimed in one of claims 13 to 15, characterized in that a customer distribution system (VDFS) in a data processing apparatus (10) creates semantically complete supply files and/or supply data  
35 streams (CL1 to CLn) with inventory and/or delta data elements for an unlimited number of lists (Cifps1 to Cifpsn) containing primary keys and data element types

from data areas (B1 to B5), the supply files and/or supply data streams being delivered in a manner sorted such that customer systems (CS1 to CSn) which can be connected to the data processing device (10) and which  
5 have their own data store and data processing can process the delivered data (CL1 to CLn) very quickly without additional database access operations, and the referential integrity of the data stores of the customer systems (CS1 to CSn) is maintained at all  
10 times.

17. The method as claimed in claim 16, characterized in that a delta data generation system (VSS) in the data processing device (10) creates inventory data  
15 elements upon request or under time control from a database (HPSDB) provided by a data collection system (HPS) and stores them in an inventory database (SupplyDB) provided for this purpose.

20 18. The method as claimed in claim 16 or 17, characterized in that a renewal process is used to produce delta data elements which are preferably stored in a delta database (DeltaDB), the delta data elements being produced either when the inventory data elements  
25 are stored or when the supply files and/or supply data streams (CL1 to CLn) are created.

19. A computer program having a program code, characterized in that when the program code is executed  
30 on a data processing installation the method for creating and delivering financial information as claimed in one of claims 13 to 18 is carried out.

20. A data storage medium having a program code stored thereon, characterized in that when the program code is  
35 executed on a data processing installation the method

for creating and delivering financial information as claimed in one of claims 13 to 18 is carried out.